MAINE
STATE GOVERNMENT

OVERVIEW
OF
ACCOMPLISHMENTS
AND
STRATEGIC DIRECTION
IN
INFORMATION
AND
TELECOMMUNICATIONS
TECHNOLOGY

The next gift [printing press] would radically change how knowledge was recorded and disseminated. It would also change the nature of knowledge itself, how it could be used, and how many people could have access to it. . . . . This gift would break up the monolithic social structure of Christendom and diffuse control outward to many peripheral centers of power. This was possible because, at a stroke, the new gift also increased the number of changemakers. [Page 122]

The effect of the introduction of the computer was to create new kinds of data, bring into existence new kinds of activity, and encourage organizations of all kinds to expand and, above all, to diversify. [Page 283]

James Burk and Robert Ornstein,
The Axemaker's Gift,
P. G. Putnam's Sons, 1995

June, 2001

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ANGUS S. KING, JR.
GOVERNOR

June, 2001

Telecommunications and Information Technology have made Maine State Government better and more responsive to the needs of Maine citizens. Our initiatives to put government online and provide e-government services have born fruit.

State Government's role, however, has gone beyond adopting technology for its own purposes. It should, and has, fostered the implementation of technology in our universities, colleges, secondary and primary schools. These tools do not just improve the quality of education in the basics and open access to diversified informational resources; but they provide students with the new skill sets needed by businesses and citizens in our information age.

The State's adoption of e-government has also provided a stimulus for private sector development. The State's investment sped the development of a robust information network backbone that links both urban and rural areas to the national and global economy. The backbone has allowed Maine to develop and attract new technology industries. The State's e-government initiatives have also provided a catalyst and training for traditional industries to adopt new e-commerce technologies that will make them competitive in the world economy.

What follows is a report on where we are in terms of technology, but perhaps more importantly, it outlines where we must go.

Sincerely,

Angus S. King, Jr.
Governor

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DEPUTY COMMISSIONER

June, 2001

Government and records are almost synonymous. Information has always been the business of government.

Maine State Government adopted, early and aggressively, telecommunications and information technologies as a means of managing information and providing services. The Information Services Policy Board, with the aid of agency technology officers, set the standards for interoperability. Standard agency Local Area Networks and the enterprise Wide Area Network provide universal and seamless connectivity. Database standards facilitate compliance with federal and Maine legislative mandates for information sharing. A common set of e-mail and desktop productivity tools enhance communication among all branches and agencies of government.

Specialized applications manage both enterprise and agency programs. These improve the efficiency of government. They facilitate citizen access to public information. Most importantly, they enhance the State's ability to protect the security of sensitive and confidential information.

Much has been accomplished and much is still to be gained from the application of Telecommunications and Information Technologies in the service of Maine State Government and Maine citizens. This document reflects the many efforts which are occurring across State Government. These efforts are exciting and dynamic and position Maine as a leader in many areas.

Your comments and suggestions are encouraged for future publications.

Sincerely,

Janet E. Waldron
Chair, Information Services Policy Board

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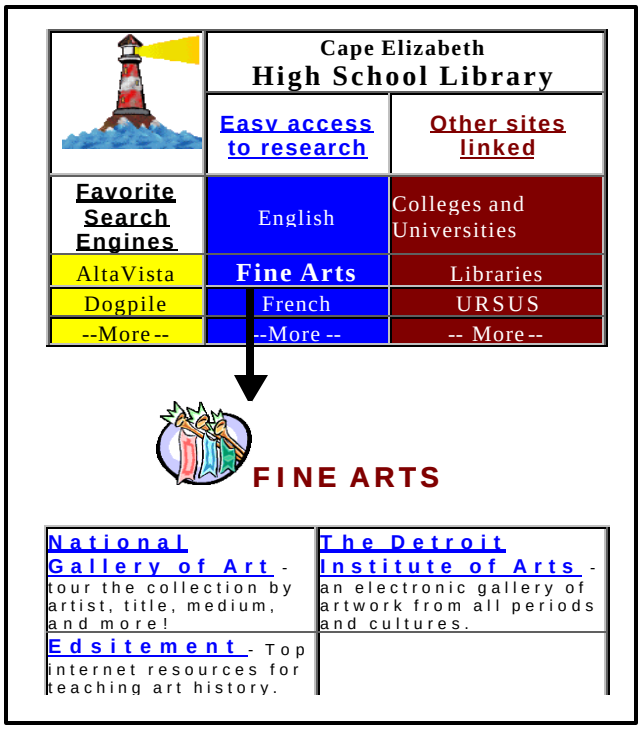
VISION FOR THE FUTURE

Maine citizens and businesses will connect to a robust phone, cable, wireless **information and telecommunications network** that will allow them to receive and send voice, data, and video messages to others anywhere in the state, nation, and world.

In Limestone, Aroostook County, a local business will connect with customers in Portland Maine, Portland Oregon, Portland England or Portland Australia, send a video presentation of their products, engage in an online dialog regarding how their product capabilities meet the customers needs, and receive and process orders.



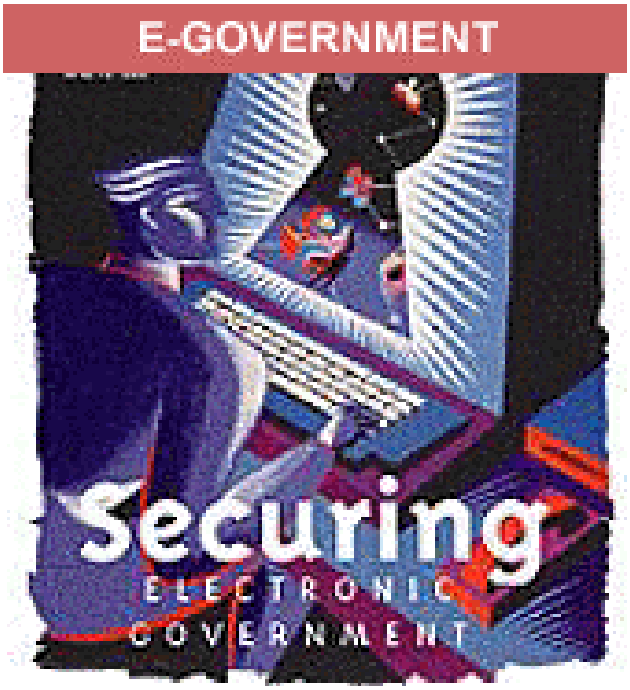
High school students at both the Limestone Community School and the Maine School for Science and Mathematics will conduct discussions and joint projects with students in other schools in Maine, Oregon, England, and Australia. They will access documents, statistics, and video presentations on specialized topics from libraries and other resource centers around the world.

State employees analyzing the effectiveness of government programs will **integrate document and data information resources** across state and local government and seamlessly share information with federal and private sector partners. Policy reviews of services to people with mental retardation will use a common set of tools to access compatible storage sites for documents and statistical data on residential and other community support programs from the Department of Mental Health, Mental Retardation, and Substance Abuse Services; job market information from the Department of Labor; educational and training data from the Departments of Education and Labor; and program expenditures from the Bureau of Accounts and Control. The Department of Education will access directly reportable school performance and financial data and other documents stored at information repositories in each school.

An employee will directly enter time and attendance and expense voucher information into an **integrated personnel and financial management system**. The system will record supervisory approvals and automatically process payments through accounting system charges to agency budgets, direct deposit of payments to employees, and reconciliation with banks.

Operational units will enter requests for the purchase of office equipment. A **set of financial applications** will provide online recording of approvals and forwarding of purchase orders, collection and processing of bids, vendor selection and initiation of delivery, crediting charges to agency budgets, direct deposit of payments, and reconciliation of bank statements.

Integrated sets of applications will **manage customers and agency operations.** A citizen with a physical disability will either go to a state social service office, local welfare office, or access online from home an application to assess eligibility for financial assistance, education and job training, health insurance, counseling, housing, or other community supports. The individual will obtain additional information on the services for which they are eligible and initiate a single application for services.



Maine businesses and citizens will access information and conduct all routine business though a full set of **e-government services** accessed over the Internet through a single functional and interest area organized portal. A business interested in establishing in Maine will access a GIS database to evaluate site locations, submit the necessary environmental and licensing applications, and file incorporation papers online. Once established, they will submit their annual corporation reports, sales and income taxes, and license renewals over the Internet. Businesses conducting commercial transactions with the State will be able to submit bids on contracts and equipment purchases online and have payments deposited directly to their bank accounts.

Citizens moving to the state will access **profiles of Maine communities** from their present location. They will search for available real estate, examine the offerings and performance of local schools, and explore shopping and recreational opportunities. Once established as Maine residents, they will renew professional licenses, car registrations, and drivers licenses and submit income taxes online.

INTRODUCTION

Maine state government's commitment to the digital revolution has a substantial history and has followed the general waves of technological development. It started with the modest precursors of the IBM and BULL mainframes. Their continually expanding speed and power, along with distributed terminal access from individual agency sites, have made mainframes a sustaining contributor to the State's computer infrastructure. Because of their capacity and cost, they became part of consolidated, enterprise computer services.

The development of mini-computers provided selected agencies the opportunity to gain greater flexibility and control over the computer applications that supported their business and management processes. While their role did not mature to make a continuing contribution to the computing infrastructure, they did give a pre-taste of the creative agency energies accessed by distributed systems.

At the beginning, even its developers did not envision the truly transforming impact of the personal computer. It enabled the transfer of application development from the world of the computer specialist to the business user. If not totally in fact, the perception certainly changed. End users developed their own, albeit small, applications to support their management tasks. The introduction of Local Area Networks (LANs), ever more powerful PC's, and servers solidified the distribution of the focal point of the computer infrastructure to departments and agencies.

With each new wave of technology, agency business processes have been automated, made more efficient and effective.

In general, however, developments have supported and strengthened the hierarchical organization of state government, the compartmentalization of activities, and the continued development of single purpose, stovepipe applications. The mainframe based enterprise MFASIS system for accounting, budget development, and human resource management represents a notable exception. Modern organizational theories and citizen demand for a location for one-stop-shopping in the confusing array of governmental service and regulatory agencies required a different solution.

The development of Wide Area Network (WAN) technology connected dispersed agencies in "campus" wide networks. Verizon's high speed telecommunications backbone and the Internet revolution have connected the State's regional offices to the center and state government to other local and federal agencies, in short, everyone to everyone. The possibilities to communicate and integrate information appear limitless. The expectations of the public have grown apace. Citizens and businesses increasingly expect to be connected to governmental operations that are integrated, accessible, and presented in a manner that serve each user's interests.

The current wave of technology has opened up new possibilities. The

challenge is to modify existing and develop new systems in ways that take advantage of the new technical possibilities and meet the enhanced expectations of businesses and the general public.

To facilitate and direct the integrated implementation of technology, the State established a representative multi-agency governing body, the Information Services Policy Board (ISPB). Underpinning its endeavors has been a commitment to certain guiding principles. The Board has summarized these under five goals in a working document. The complete document is found in Appendix A. The five goals are:

GOAL I. Information and Telecommunications Technology will enhance the productivity of state employees and the cost effectiveness of state government.

GOAL II. Information and Telecommunications Technology will be implemented in the most cost effective manner.

GOAL III. Information and Telecommunications Technology will enhance service to customers and business partners.

GOAL IV. Information and Telecommunications Technology will foster trust in state government as custodian of valuable records while at the same time facilitating public access to public records.

GOAL V. Information and Telecommunications Technology will act as catalyst for the statewide private sector development of a modern information network and adoption of electronic commerce.

These Goals provide the basis for the State's Vision and Strategic Direction for the Future and help it set priorities for direct Action Items.

As in any journey, it is important to understand how far one has traveled and the characteristics of ones current location in order to assess which of the many alternative pathways, to take in the future. This report examines Maine state government's accomplishments, current initiatives, and future strategic direction under six major government functions:

I. Network Infrastructure,

II. Information – Data and Document Management,

III. Financial and Personnel Management,

IV. Customer Management and Agency Operations, and

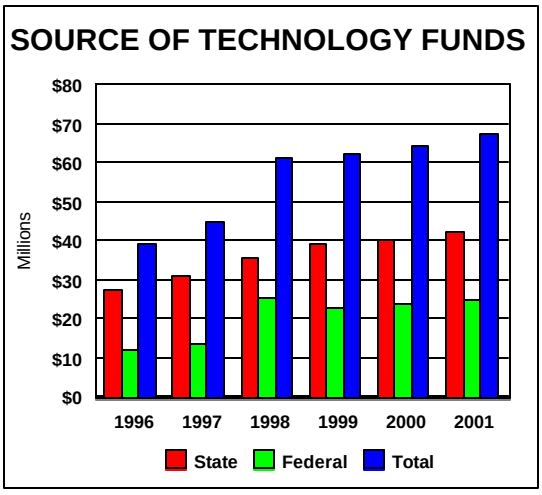
V. E-government – Access and Services for Citizens and Business.

VI. Security and Privacy.

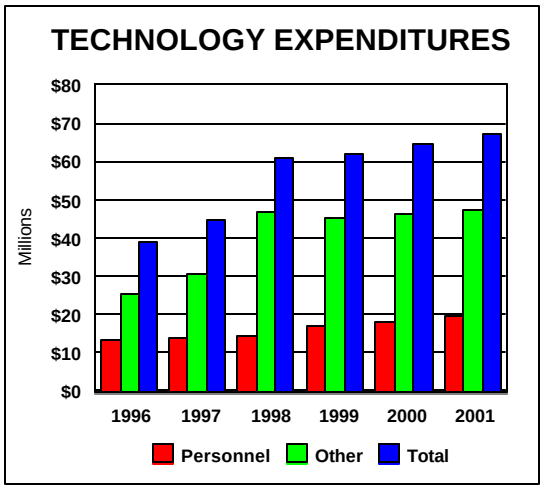
Readers should keep in mind that this report represents a snapshot in time. Predictions of future directions are limited by current knowledge of opportunities and trends in technology. In the near term (1 to 5 years), they can provide an accurate guide. In the long term, they will be seen as the basis on which to assess and accommodate future change.

INFORMATION AND TELECOMMUNICATIONS TECHNOLOGY IN SIX FUNCTIONAL AREAS

Information and Telecommunications Technologies provide the tools to enable government to conduct and manage its operations more effectively and efficiently; to reorganize its business activities; and to better serve the interest of citizens, customers, and business partners. To take advantage of the opportunities provided, both the state and the federal government have increased their support for technology.



The State's total expenditures rose from $39 million in FY 1996 to $67 million in FY 2001. The State and federal contributions increased about the same dollar amount over the period but the State's share declining from 70% to 63% of the total. The increased use of innovative technologies and use of outsourcing is indicated by the 85% increase in capital and all other expenditures. Personnel expenditures increased by a smaller 47%.

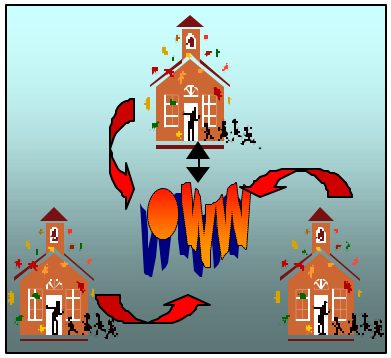


The accomplishment of the State, current initiatives, and future directions are discussed under six functional headings. These reflect infrastructure development; information, financial, and customer management; e-government; and security.

I. NETWORK INFRASTRUCTURE

To address the increasing importance of information technology for both the private sector and state and local governments, the State established the Maine Telecommunications and Information Technology Planning Project to support infrastructure development. In 1995 the Project summarized the importance of the effort:

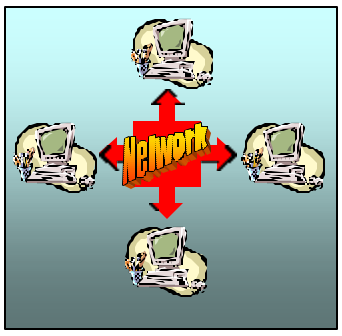
> Telecommunications are playing an increasing role in the exchange of information, flow of ideas, and provision of essential services in education, business, health care and government. These technologies will have a profound impact on all citizens in the state. They will connect Maine communities and their residents with each other and with the rest of the nation and the world, by voice, video, imaging, and data transmission.
>
> Every year, Maine's economy and the well being of its citizens become increasingly dependent on the creation, manipulation and transfer of information among ourselves and with the rest of the world. Access to an advanced telecommunications system is essential to ensure long-term strategic development of the state's economy and the quality of life of all its citizens.



To foster the development of this vision, the State accepted the Project's conclusion that the synergies to be derived from combining public and private investments would benefit all segments of Maine society. To take advantage of this synergy, the State used its investment in the State's WAN, School and Library Network, and Internet connectivity to encourage and leverage the private sector's development of a statewide telecommunications infrastructure. This private phone and cable company infrastructure provides a robust and redundant backbone for the development of both private and public sector communications networks. The development of robust state government and University of Maine System networks and the dramatic growth in call centers and other e-business activities in Maine are testimony to the success of this approach.

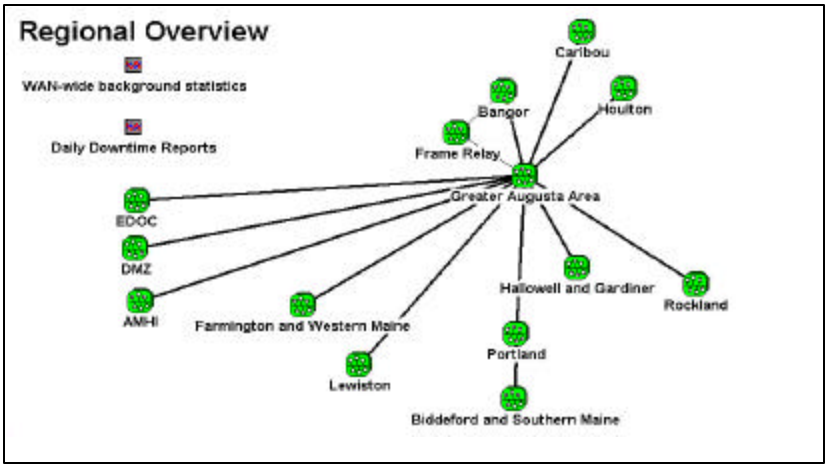
A. ACCOMPLISHMENTS:

State WAN and agency LANs



Building on a private statewide backbone, Maine state government has developed a robust network infrastructure of agency LANs connected to an enterprise wide WAN administered by the Bureau of Information Services (BIS). The network provides point-to-point connectivity for all users and devices in every agency in all three branches of Maine

state government. It connects central Augusta area agencies as well as agency branch offices and local government entities across the state. It supports an enterprise wide e-mail system and Internet connectivity.



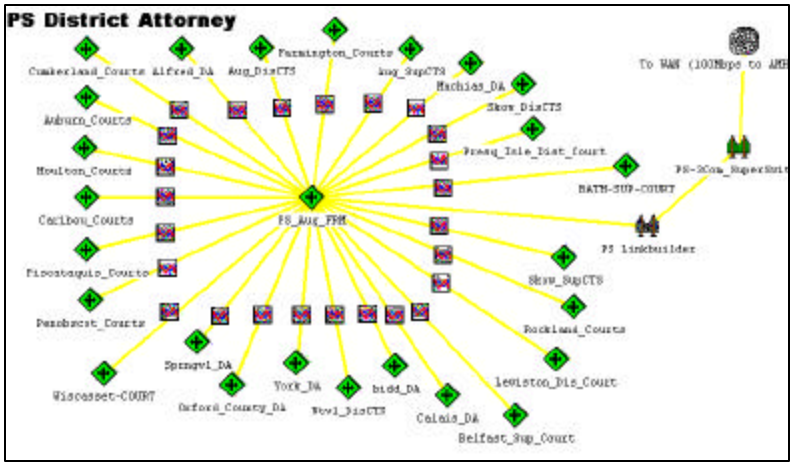
The network infrastructure is based on uniform standards established by the State's Information Services Policy Board (ISPB) for all executive branch and independent agencies of state government. The Legislative and Judicial branches utilize the State's enterprise WAN, e-mail system, and Internet connection and voluntarily comply with other standards.

State Building Renovations

The recent renovations at the State House, Burton M. Cross Building, AMHI Campus, Criminal Justice Academy, correctional facilities, and Department of Humans Services offices have all included installation of a state-of-the-art, high-speed, building telecommunications infrastructures.

Public Safety Network

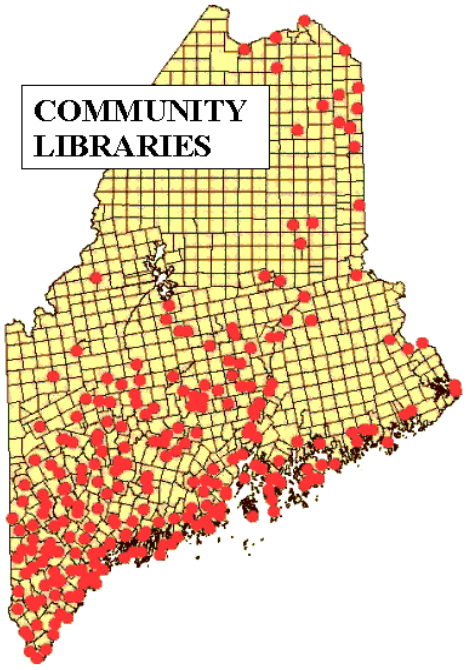
For compliance with federal (FBI) security requirements, the Bureau of Public Safety has a separate network, administered by BIS. The network connects State Police, County sheriffs, and 60 local police stations. It also links officers at the Maine Departments of Corrections, Marine Resources, and Inland Fisheries and Wildlife as well federal government agents across Maine. Through the network, police, sheriffs, and other law enforcement officers have access to Maine motor vehicle and criminal history records. They can also access information in other states and from federal government sources. Security issues currently inhibit the closer integration of the Public Safety network and the State's WAN.



Maine School and Library Network

Through its Maine School and Library Network (MSLN) Project, Maine became

the first state in the country to connect all public schools and libraries to the Internet. The MSLN is a joint State, UNET (University of Maine System network), and Verizon (formerly Bell Atlantic and NYNEX) sponsored initiative. The MSLN Project provides an array of services including:



- Internet Access
- Regional Network Routers and Dial-Up Hubs
- Network Monitoring
- Technical Support Services

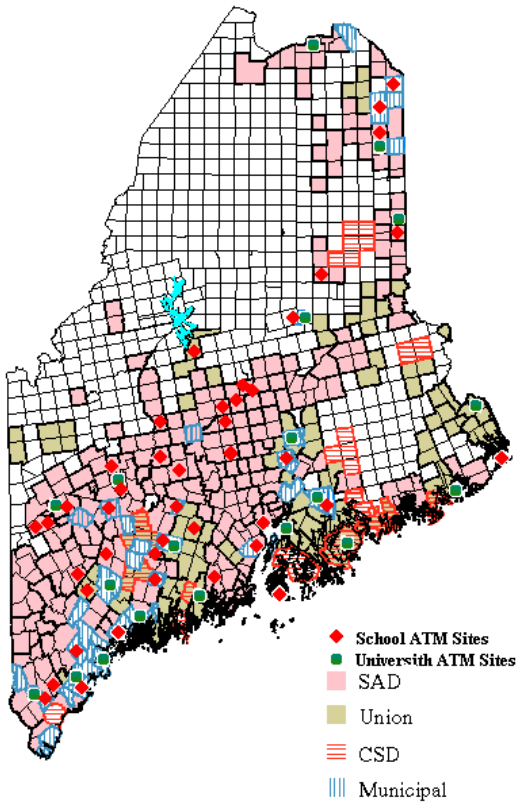
A Board of Advisors that reports regularly to the PUC governs the MSLN. Funding comes from Verizon, the federally enacted E-Rate program, and the Maine Public Utilities Commission's E-Rate initiative for intrastate calls.

Video Conferencing and Distance Learning

In 1995, Maine voters approved a $15,000,000 bond issue to pay for switching and routing and other ATM (Asynchronous Transfer Mode) network and video classroom equipment for public schools and selected libraries. The Department of Education established the Advanced Telecommunications for Maine (ATM) Project to coordinate the use of these funds with network development efforts of the Maine School and Library Network and the University of Maine System.

The effort has established high-speed data connections and two way video and audio transmission capacities at sites across the state and enabled the State's University System and public schools to develop Distance Learning initiatives. By the Fall 2001 term, the ATM Distance Learning Project will have 48 school and library sites toward their goal of 170 sites. The University System plans to offer ATM services at 10 campus sites by

ATM DISTANCE LEARNING SITES



the Fall and an additional 10 center and affiliated sites in the future. In addition to meeting the international standards for video and audio transmissions (MPEG2), the network provides for interoperability between MPEG2 and other standards based video applications such as the University's ITV system and ISDN transmissions. The network also has ample room for growth and the flexibility to adapt to future standards and technologies.

The public school sites and sites at the University of Maine campuses will provide interactive video connections for courses and also conferencing and training programs for state employees, teachers, and other public and private sector groups.

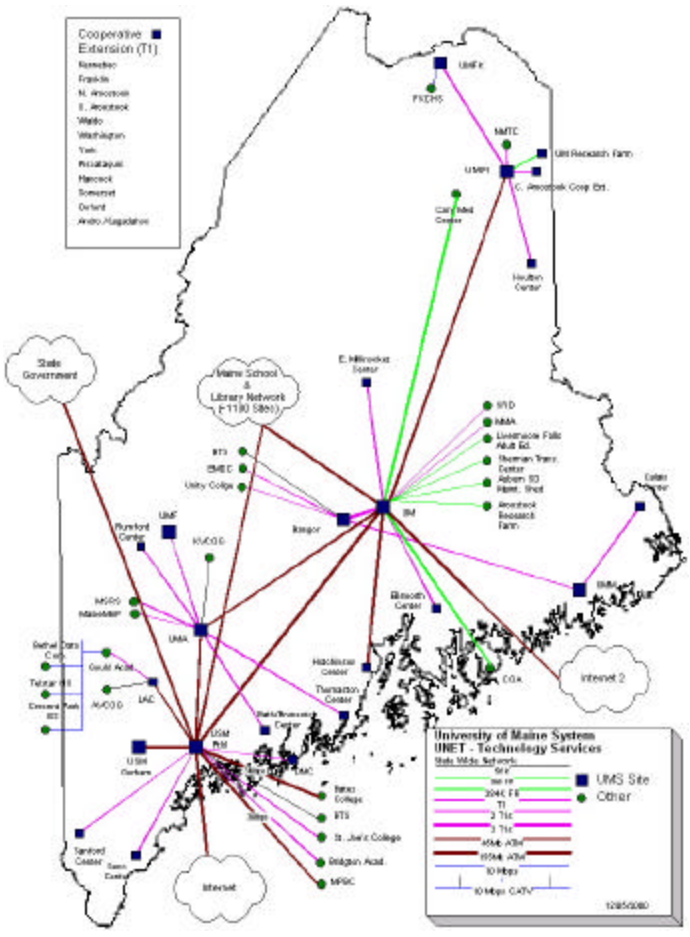
University of Maine System Network

The University of Maine System is a major player in the development of telecommunications networks in Maine. It has established UNET (University Network for Educational Technology Services) to connect individuals and offices within the University of Maine System, including satellite locations. UNET also manages the Maine School Library Network and the ATM Project initiative and acts as the State's Internet provider.

In addition, UNET has a Biotechnology Initiative to connect the University of Maine and the University of Southern Maine with private, non-profit research institutes (Jackson Laboratory and Maine Medical Research Institute). It has a similar initiative for Maine Sciences Connectivity. Finally, UNET actively participates in the development of Internet2.

The Internet

The connection of state agencies to the Internet provides access to other levels of government as well as to private sector entities and the general public. The Bureau of Accounts and Control and the State Treasurer can conduct transactions directly with financial institutions in the state and across the nation. The Departments of Human Services and Mental Health, Mental Retardation, and Substance Abuse Services can send and receive information necessary to monitor their contract with non-profit suppliers of services to clients. The Bureau of Medical Services has a real time connec-



tion with pharmacies for the monitoring of its prescription drug program under Medicaid. The Department of Labor has used the Internet to give its clients access to job opportunities with Maine employers and to national job banks.

Internet2

The University of Maine System has actively participated in the national Internet2 initiative. Intrernet2 will provide a separate network for universities, research centers, and government entities. This separate Internet2 network will allow for the high-speed transmissions of large data files, high-resolution graphics and video, and other information required by inter-institutional cooperative research projects. It will also isolate these institutions from the traffic overload caused by private sector use of the current, "original," Internet. Internet2 currently connects 181 universities plus federal government research offices.

B. CURRENT INITIATIVES

State's WAN

BIS is upgrading the State's WAN by installing routers and migrating away from its current bridged network design. Routing network traffic will make the WAN more efficient and eliminate traffic bottlenecks.

Windows 2000

BIS, in conjunction with the Information Services Managers Group, has embarked on a Windows 2000 enterprise planning effort. Upon implementation, Windows 2000 will help standardize and facilitate the interagency transmission of information services, establish an enterprise wide e-mail user name directory, support electronic commerce, and provide enhanced security options. BIS has established a test lab to gain experience. It expects to be ready to begin the implementation of Windows 2000 as agencies move into the remodeled Burton M. Cross Building in calendar year 2001. The Departments of Transportation and Environmental Protection are also planning the transition to Windows 2000 starting in FY 2002.

Maine School and Library Network

Current funding for the Maine School and Library Network (MSLN) expires in June of 2001. The Legislature enacted a new authorization for the PUC (35-A M. R.S.A. Section 7104-B) to establish a Telecommunications Education Access Fund. All carriers providing telecommunications services in the State will contribute to the fund. In combination with the federal E-Rate, the fund will be used to continue to provide schools and libraries discounts for telecommunications services, Internet access, internal connections, computers, and training under the renamed, MSLN2.

ATM and Video

The ATM Distance Learning Project has scheduled the addition of twenty-five new school sites in both FY 2001and FY2002. A total of 170 sites are planned. In addition, the University System is migrating its ITV system to the ATM network. The ATM and Video systems will be further enhanced by the $10 million General Obligation bond issue

passed by the voters in June 2000 for the development of digital TV broadcast capability by the Maine Public Broadcast Network (MPBN).

MPBN's entry into digital broadcasting will not just mean better quality pictures and sound, it will give viewers access to multiple, simultaneously broadcast programs. This "multicasting" will expand the educational programming to schools. In addition, it will allow the transmission of supporting information and enable teachers and students to delve deeper into the subject matter of a broadcast program. The full potential of the interactive capabilities of digital television are yet to be explored.

In addition, the Departments of Corrections and Mental Health, Mental Retardation, and Substance Abuse Services are installing ISDN lines at the State's prisons. The prisons will initially use the lines for video-medicine connections. The prisons and the courts can expand their use in the future.

Connecting State Police Cars to Critical Information

The State Police are piloting the installation of laptop computers in patrol cars with cellular network connections to the State's network. This will allow officers real-time access to Bureau of Motor Vehicle registration, licensing, and violation information and to information on Maine and national criminal history databases.

Maine Governmental Information Network Board

The Legislature established the Maine Governmental Information Network Board (5 MRSA, Chapter 17, §§ 353-357) to facilitate the development of a state and local government network. The intent is to facilitate and coordinate the growing number of state agency arrangements with local government units and public schools. It will take several years to implement a fully inclusive network incorporating all state agencies and county and municipal government offices.

C. FUTURE STRATEGIC DIRECTION

Maine will continue to expand its telecommunications infrastructure to insure the availability of high-speed and reliable voice, data, and video communications for all public and private users in the state. The state government will further integrate and expand the various public networks to meet the needs for secure communications among all state and local governmental agencies and the Maine University System's UNET.

Action Items:

- Link state and local government agencies in a secure, integrated network for voice, data, and video transmissions.
- Expand the telecommunications infrastructure to rural areas of the state.
- Make Interactive video conferencing available to public agencies and the private sector in all geographical areas of the state.

II. INFORMATION – DATA AND DOCUMENT – MANAGEMENT

Computers have changed the way we think about information, the ease and speed in which it can be accessed, and the manner in which it can be assembled to create a new resource for decision makers. The State recognized that this potential rested on the communication network and the readability of the bits and bites transmitted. To this end, the Information Services Policy Board and individual agencies have made a concerted effort to lay the groundwork to assure that the applications that create and store documents and data can seamlessly share the information.

A. ACCOMPLISHMENTS

Desktop.

The State has recognized the utility of desktop computers, e-mail, and other application tools in enhancing the effectiveness and efficiency of its employees. Currently 11,300 desktops with supporting LAN, WAN, e-mail, and Internet connections are dispersed though all state agencies. In recognition of the benefits of standardization both for the communication of information, training of personnel, and purchase of equipment, the ISPB has established standards for desktop productivity tools (Microsoft Office) and e-mail (Microsoft Exchange and Outlook). Agencies are aggressively consolidating on the Microsoft desktop standards. The Legislative Branch and over 90% of the Executive Branch agencies are using Microsoft Exchange server e-mailboxes.

Data Base Management Systems.

The ISPB has established state government standards for Data Base Management Systems (DBMS). These include the following DBMS applications for large, medium, and small databases:

- Large databases: Oracle.
- Medium databases: Oracle, Progress, or SQL Server.
- Small databases: Microsoft Access.
- Individual user databases: Microsoft Access or Lotus Approach.

All applications developed in recent years have complied with these standards enhancing the enterprise sharing of information, staff expertise, user training, and application development.

DBMS for a Paperless Office

The Secretary of State, Bureau of Corporations, Elections, and Commissions uses an Oracle DBMS to support both its corporation and UCC (leans) filings application and its election

management application (see pages 26-27).

Searching for Jobs and Filling for Unemployment Online

The Department of Labor has aggressively reengineered and migrated its "legacy" BULL mainframe applications and databases to Progress and Oracle client/server program support applications. In addition to managing client information, these applications enable Unemployment Insurance and Job Center customers to file for benefits, conduct job searches, and schedule job interviews online (see pages 25-26 & 30-31).

Meeting and Managing the Multiple Needs of Social Service Clients

The Department of Human Services has developed a number of Oracle database applications to manage its health and welfare programs (see pages 23-24). These will integrate the Department's assessments of eligibility across all programs and automate the processing and payment of benefits to clients and providers.

Data Warehouses.

The MFASIS Information Warehouse allows analysis of trends in budgeted and actual expenditures and in payroll, personnel, and position data (see pages 18-19). In addition to the enterprise MFASIS Warehouse the Departments Human Services and Transportation, among other agencies, are using data warehouse and data mart technologies to manage their own data resources.

Improving Management by Integrating Information.

The DHS, MMDSS (Maine Medicaid Decision Support System) pulls together information from many systems, allows quick access to a wide variety of data, and greatly enhances the ability to research historical Medicaid information.

Accessing Transportation Data with the Click of a Mouse.

The DOT, Transportation Information for Decision Enhancement (TIDE) is a data warehouse of transportation data with Geographic Information System (GIS) presentation tools (see page 14).

Geographic Information System

The State has developed a nationally recognized Geographic Information System (GIS). The central Office of GIS (OGIS) is administratively located in the Bureau of Information Services (BIS). To oversee its activities, the Information Services Policy Board established a GIS Executive Council. The Council is composed of all major GIS user agencies and currently has 19 members.

Common Shared Infrastructure.

Services provided by OGIS enable and enhance the ability of large and small agencies to utilize GIS. Certain functions

of the statewide system are centralized in OGIS to improve service, reduce duplicate efforts, and to enable cost-effective delivery. The primary central functions are:

- Managing master copies of the State's GIS databases.
- Developing state-of-the-art access pathways to these data resources.
- Training.
- Technical support.
- Common infrastructure development.
- Overall management.

These central functions give all agencies, regardless of size, equal access to GIS technology and geographic information. They enable agencies to add data files easily to the system using standard geographic location designators established by the OGIS. Provision of these central services has and will continue to be the primary role of the OGIS.

Enhanced 911.

In 1988, Maine voters approved the statewide deployment of Enhanced 911 service. The Maine Office of GIS (OGIS) is working with the Department of Public Safety (DPS) to support its statewide implementation. This improved emergency communication system automatically displays the physical address of a caller on a map at an emergency call answering center. Mapping the address allows center staff to send help to the precise address even if the caller becomes unconscious, hangs up, or does not speak English.

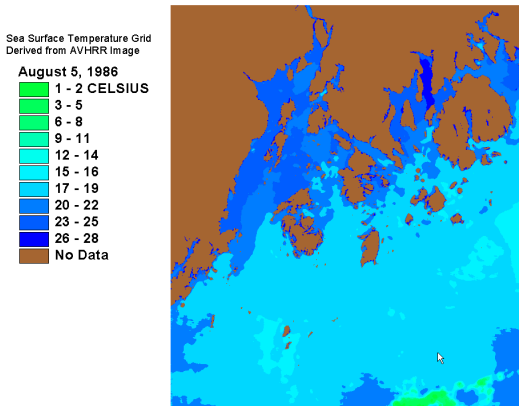
Enhanced Presentations to Policy Makers and the Public.

The Department of Transportation's Transportation Information for Decision Enhancement (TIDE) application uses GIS tools to map out and provide easily understandable information on state roads and highways for the Legislature, Governor, department personnel, local officials, and the general public. It creates maps to display roads and bridges, speed zones, capacity information, accident location data, construction project history information, and pavement management data.

Public hearing materials produced with CADD and GIS technologies provide citizens with easily understandable information about upcoming projects. "Smart" maps can show a diverse body of information, including project locations, animal accident densities, traffic counts, and inter-modal facilities. These help focus analysis and decision making processes

Managing Maine's Costal Resources

The Department of Marine Resources (DMR) has used GIS as part of the State's effort in the identification of



sensitive fishery habitat areas such as submerged aquatic vegetation for, among other issues, planning responses to potential oil spills; for aquaculture lease siting; and for managing shellfish flat closures. In addition, DMR and the State Planning Office have worked with the Island Institute on the Penobscot Bay Marine Collaboration Project. The project applies remotely sensed data from the National Oceanic and Atmospheric Administration's National Environmental Satellite Data and Information Service (NOAA/NESDIS) with state-of-the-art oceanographic data to describe the ecological characteristics of the Bay and to improve management decisions made about the Bay. DMR's management interest has in particular been focused on the Bay's lobster fishery, which is one of the largest in the State.

Protecting Maine's Environment.

The Department of Environmental Protection (DEP) databases and GIS are used to inventory and track environmentally sensitive areas such as wetlands, water bodies, aquifers, wildlife habitat, and public drinking water supplies. These data are used to determine the potential impact of proposed use and development activities.

GIS also aids DEP in its efforts to monitor hazardous wastes and spill sites and to respond to problems. It is a major and expanding user of GIS mapping and display technologies. Global Positioning Systems (GPS) and Geographical Information Systems (GIS) are used to prepare maps, detailed site plans, and 3-dimensional plume models to assist staff and the public to better interpret complex data sets and understand management issues in site remediation.

DEP's Marine Oil Spill Information System (MOSIS) recently drew high praise in a joint US / Canada exercise for its ability to produce real-time maps of environmentally sensitive areas to track spill containment and clean-up efforts.

Protecting Forestlands and Wildlife Habitats

The Departments of Conservation and Inland Fisheries and Wildlife (IF&W) have used GIS technology in their efforts to protect and manage Maine's forests and wildlife and to provide information for land use management. The Wildlife Division of IF&W has created data sets to display and track wildlife habitats for its activities in habitat assessment and protection and in recording of game species harvest data for species management planning.

The Department of Conservation uses GIS data sets and maps in its protection of forestlands and management of state parks and lands. The Department's Land Use Regulation Commission (LURC) has incorporated GIS in its planning and development regulation efforts in Maine's unorganized townships.

B. CURRENT INITIATIVES

Data Warehouse.

The DAFS, Maine Revenue Services (MRS) and the BIS are jointly developing a data warehouse for tax and other related data. The warehouse will be coordinated with the MFASIS Financial Warehouse and will provide information for improved audit selection, collections management, and non-filer identification. It will also provide data for MRS's revenue forecasting (see page 18).

Database Management Systems.

DHS will migrate its legacy BULL mainframe Welfre system to an Oracle based Automated Client Eligibility System (ACES) and Client Management System (CMS) (see page 27).

Geographic Information System:

The Information Services Policy Board has approved the GIS Executive Council's 5-year plan for consolidating and expanding GIS services for state and local government agencies. The plan addresses the need to develop a more permanent funding structure for the OGIS's central support functions and encourages appropriate application of GIS technologies.

Managing "Smart Growth"

The Maine Legislature has reached the conclusion that the best way to preserve Maine as "the way life should be" and at the same time keep "Maine on the move" is though Smart Growth. The OGIS initiatives in this area include the development of growth zone data mapping tools. The tools will aid planners and developers in designing projects and banks and other financial institutions in evaluating project compliance with Smart Growth grant guidelines. They will also enable state policy makers to track and evaluate the success of the State's growth management initiatives.

Managing Marine Resources for the Protection of Public Health

In a multi-state initiative, the State Planning Office and DMR have participated in the development of the Gulf of Maine Ocean Observation System (GoMOOS). When completed, the System will display oceanographic, ecological, and fisheries` data over the Internet. The collection of the data and the GIS mapping will enhance the analysis and presentation of resource management and planning issues in the Gulf of Maine.

DMR has also started an Internet Mapping Project. The project will provide shellfish harvesters and dealers, as well as the general public, access to real-time maps displaying information on Red Tide closures and sea surface temperatures. The prevention of paralytic shellfish poisoning caused by eating Red Tide contaminated shell fish is a continuing public health initiative of DMR. Among other future management uses, DMR intends display 30 years of data on the lobster fishery in each of 7 management zones.

C. FUTURE STRATEGIC DIRECTION

Document Management Systems.

Maine state government will develop policies, procedures, and document management applications to capture, store, and retrieve digital voice, data, and video records of both time limited legal and permanent archival value.

Action Items.

- Develop policies and procedures for the management of e-mail messages and electronic documents.
- Develop standards for document management systems.
- Develop policies, procedures, and technology requirements for the perpetual storage and retrieval of permanently valuable Archival records.

Data Management.

The State will integrate and share data resources across all agencies through the migration to standard interoperable database management systems, development of standard data definitions, and deployment of electronic application interchange (EAI) technology.

Action Items.

- The Department of Corrections will migrate and reengineer its databases and applications to an integrated set of state standard database management systems and applications.
- The ISPB will encourage the development of standard sets of data definitions and interoperable metadata for elements common to multiple applications and/or agencies.
- BIS will analyze need and develop specifications, for the installation of EAI technology.
- DHS and DMHMRSAS will work to make their database files and data dictionaries compatible with standards under the federal Health Insurance Portability and Accountability Act (HIPAA).

Data and Document Warehouse.

The State will develop data warehouse capacities to enable easy access and integration of information resources to meet the policy analysis and management needs of state government and promote the health, welfare, and economic security of Maine citizens.

Action Items.

The ISPB will develop Data and Document Warehouse standards to facilitate information sharing and transmission.

III. GOVERNMENT FINANCIAL AND PERSONNEL MANAGEMENT

Program managers and policy makers have a common need for meaningful information collected in an accurate manner and delivered in a timely fashion. Computer technology has facilitated the assembly and transmission of vast amounts of relevant information. Increasingly, its has also provided the tools to analyze and present information in ways that radically enhance the user's ability to understand past events, manage current tasks, and predict future outcomes in their organizations. As indicated below, the State has made significant investments in this area.

A. ACCOMPLISHMENTS

Predicting State Revenues

The Maine Revenue Services, Division of Research has implemented a sophisticated tax simulation model. The model allows the State to forecast baseline revenues, calculate the impact of proposed changes, and estimate the distribution of state and local tax burdens. In general, it provides policy makers with faster, more consistent, and more reliable data.

Automation and Integration of State Financial and Administrative Management Functions

The State's Maine Financial and Administrative Statewide Information System (MFASIS) provides the major enterprise tool for managing financial, budgetary, and human resource information. These three areas are supported by an integrated set of modules to manage current information plus a data warehouse to analyze data from prior years.

Accounting. The Accounting module manages all the State's payables and receivables. It enhances the controls around the disbursement cycle. The system also provides operational efficiencies with regard to automated accounting transactions. It is integrated with the DAFS, Division of Purchases' browser based (BASEC) purchasing system (see page 19).

The Accounting module, however, does not currently support newer Governmental Accounting Standards Board (GASB) standards. It also does not offer standard interface points for individual agency accounting and financial applications. Agencies are still required to use manual data entry procedures.

Budget. The Budget module collects the budget proposals from each agency electronically for the development of the Governor's budget proposals. Once the budget is enacted by the Legislature, the module tracks actual expenditures against the approved budget. Budget transactions update Accounting module files. In turn, Accountings' actual revenue, expenditure, and encumbrance data update Budget files through daily batch processing. Each system is kept in

balance, so that the budget and actual data in each are identical for reporting and analysis purposes.

The Bureau of the Budget has contracted for a new enhanced program budgeting application (see pages 21-22).

Human Resources. The existing Human Resources Management module manages the salary and benefit status of all employees. It interfaces with the Accounting module. Together, they manage all steps from agency recording of hours worked and expense vouchers to the production of payroll and expense checks or direct deposits.

Agencies, however, must currently still manually enter time sheet and expense information on their employees. An automated time and expense sheet application is under development (see page 21).

MFASIS Financial Data Warehouse. The Accounting, Budget, and Human Resource applications supply data to a Data Warehouse application. The Warehouse provides policy makers and managers with a sophisticated set of tools to conduct integrated analyses of trends over the most recent years. Either alone or integrated with the other MFASIS modules the Data Warehouse provides managers with a one-stop resource for obtaining budget, account, and staffing information needed to manage programs and develop budgets.

Paperless Processing of Applications for State Employment

The Bureau of Human Resources has recently implemented an Automated Applicant Tracking and Document Management (Imaging) Systems to manage the entire application and hiring process. This system feeds information for new hires automatically to the MFASIS HR module.

Managing and Apportioning the Costs of State Enterprise Services

The Division of Personnel and Financial Services' Customer Invoice Management System (CIMS) automates the processing, management, and reporting of Internal Services Fund charges to individual agencies. It provides customer agencies online access to billing information and enables the division to manage the process from billing through to the posting of receivables in the MFASIS system.

Online Bidding for State Purchases

BASEC™
Buying And Selling by Electronic Commerce
Vendor Registration

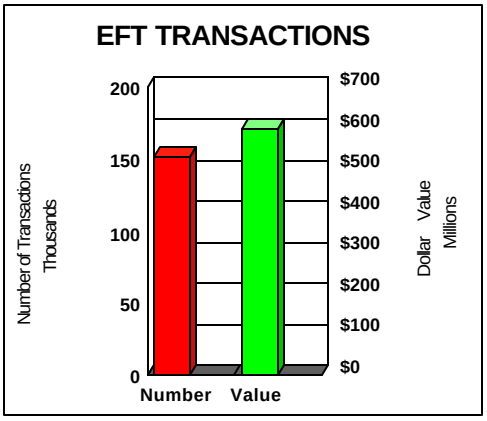
Division of Purchases has contracted for a browser-based purchasing system. The system allows agencies to enter purchase orders on-line. Vendors access the listings and submit bids over the Internet. The Division of Purchases evaluates the bids online and manages the process from vendor selection right through to direct deposit of payments to vendors' bank accounts.

Printing Paper Checks is Passé

With mutual agreement, the DAFS's Bureau of Accounts and Control uses Electronic Funds Transfer (EFT) to

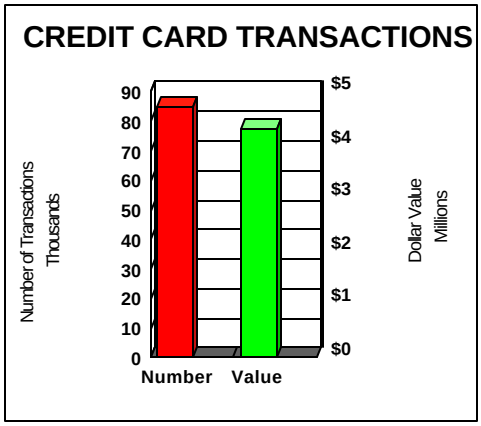
Payroll Direct Deposit

transfer payments for state employees, vendors, and contractors directly to the recipient's bank account. The DAFS's Maine Revenue Services uses EFT to both receive tax payments and issue refunds. In calendar year 2000, the State completed 151,282 EFT transactions totaling $600 million.



Credit Cards Enhance E-Government

The Legislature has mandated that state agencies accept credit card payments in services transactions. Agencies have aggressively complied with the mandate and the State Treasurer in conjunction with the Bureau of Accounts and Control has negotiated a favorable credit card rate with credit card companies. In the First 6 months of FY 2001, the State Treasurer recorded 85,060 credit card transactions totaling $4.3 million. The use of credit cards should increase in the future as InforME and state agencies work to enhance online services.



Automated Management of Internal State Agency Finances

Most state agencies have individual, or shared multi-agency, applications to automate their agency's internal management of accounting, human resource, and budget information. These, in turn, produce reports for the MFASIS enterprise applications.

Interagency Sharing of Administrative Resources

The departments of Agriculture, Conservation, and Environmental Protection have combined resources to automate personal and financial management activities in the ACE Service Center. One special component for the Department of Environmental Protection automates the generation, billing, and collection of fees. The application controls cost and improves the quality of forecasting.

Management of Social Service Clients

The Department of Human Services has numerous applications to manage services to clients. Many have financial reporting and payment components. Two examples are:

The Maine Point of Purchase System (MEPOPS), for tracking prescription drug purchases for Medicaid patients, transfers electronic files to Maine's MFASIS system for processing payments (see pages 23-24).

The Very Intelligent Payment Recognition System (VIPRS) has

enabled DHS to reduce the delivery of child support payments from three weeks to three to five days.

Effective Transportation Investment Enhanced by Efficient Financial Management

The Department of Transportation is an aggressive user of automated tools. Two of its financial applications are:

Financial Data Warehouse (FACT) provides current financial data to mid and senior level management. FACT makes departmental expenditure information readily available on-line to managers by project, appropriation, and organizational unit.

An automated work time, expense account, and leave balance recording application. Employees enter time sheet and expense information directly into an online application. Managers review the information online and create reports for entry into the MFASIS system. This system has provided a prototype spurring the development of an enterprise application (see below).

Automated Financial Management in a Paperless Office

The Secretary of State's Bureau of Corporation's Automated Information System includes the management of fees from collection to the generation of bank deposits and reports for MFASIS.

B. CURRENT INITIATIVES

Automated Tracking of Employee Hours and Expenses

Based on the DOT prototype, the DAFS, Bureau of Accounts and Control and BIS are developing a browser-based Maine State – Time and Attendance Management System (MS-TAMS) to allow employees to enter time sheet and expense account information directly into an on-line database. It will save both employees and payroll clerk's time in entering and reconciling information. It will also allow agency managers to review the information online and initiate an on-line roll up of the information into the MFASIS Accounting module's payment process.

Connecting Budgets to Performance

The DAFS Bureau of the Budget has engaged the Bureau of Information Services and outside contract and systems development services to build a Performance Budgeting Application to support the State's performance budget initiative. A prototype of the budget document and budget bill has been approved and the application is in the final stage of completion. The new software will enhance the State's ability to:

- Tie budget information to specific program objective measures.
- Integrate strategic plans and performance measures with budgets.
- Support budget development and reporting at lower responsibility center levels.
- Track and report planned to actual performance measures.

- Provide for a dynamic personal services forecasting, analysis and tracking capability.
- Track legislation with fiscal impact and integrate that data into one common system.
- Provide a capital budgeting system that identifies all project costs, supports long range capital planning, identifies financing sources by project and connects capital projects to strategic plans and performance measures.

The new application will also integrate state agencies, the Legislature, and the Bureau of the Budget into a single system. The system will allow for a seamless data flow, eliminate duplicate data entry, and improve data validity.

Automating the State Treasurer's Reconciliation of the State's Bank Transactions

Treasury's Account Management Information System (TAMI) will automate the management of bank transactions. Agency clerks will record check specific data in an electronic cashbook and TAMI will print a bank deposit ticket and create a summarized electronic cash receipt. Once reviewed and approved by a supervisor, the information will be sent to the Treasury and processed by MFASIS. Daily account reconciliations will be performed automatically and variances communicated immediately to agencies. The system will increase the efficiency, accuracy, and manageability of the State's banking transactions. It will eliminate duplicate data entry, cut processing and bank reconciliation time, and allow for a greater volume of credit card transactions and Electronic Funds Transfers.

Interfacing Agency Fee Collections with Enterprise Financial Management

The DEP is expanding the use of an electronic interface between its program fee determination and collection systems and the accounts-receivable system in the State's enterprise MFASIS application. This will give managers better control of billing and collection functions and improve cash forecasting for affected dedicated revenue accounts.

Electronic Payments to Government Business Partners

The Bureau of Accounts and Control has started a pilot project using Clareon Corporation's PayMode, a government-to-business e-payment solution. The system will allow the State Controller to digitally transmit full remittance data directly from the State's Accounts Payable system to a vendor's Accounts Receivable system. The system is bank neutral. Once evaluated by the pilot project business partners, the system will offer cost savings and administrative efficiencies to both the State and its vendors.

C. FUTURE STRATEGIC DIRECTION

Each state agency will have access to an integrated accounting, program budgeting, and human resource management system that allows information to be entered once at the agency level, reviewed online by agency

managers, and electronically available to an enterprise management system. The enterprise system will integrate and electronically manage all accounting, budgetary, and human resource information and provide seamless communications with automated State Treasury and banking applications.

Action Items.

- Upgrade the MFASIS Accounting module to comply with GASB accounting standards and to enhance its interoperability with other financial, budget, and human resource applications.

- Assure that agency data can be electronically forwarded to MFASIS in a controlled manner.

IV. CUSTOMER MANAGEMENT AND AGENCY OPERATIONS

Almost all state agencies use telecommunications and information technologies to enhance their collection, management, and distribution of information on their customers and operations. The examples presented below are only representative of a wider, near universal effort by all agencies to use technology to improve the effectiveness and efficiency of their programs and services.

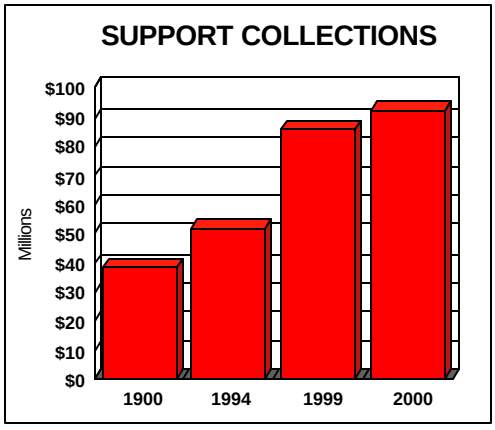
A. ACCOMPLISHMENTS

Providing Effective Social Services Efficiently

The Department of Human Services has a number of automated systems to manage its client and customer groups.

The Division of Support Enforcement and Recovery's automated system has been extremely successful. The system was certified in 1998 under the federal Family Support Act and is awaiting final certification under Welfare Reform.

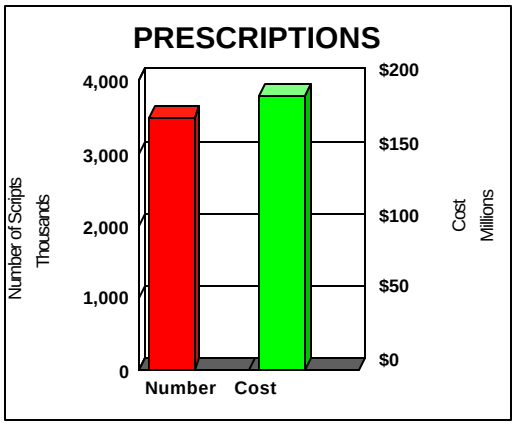
It has enabled the division to steadily increase collections during the 1990's. Collections more than doubled from $38.2 million in 1990 to $92.7 million in 2000. The Division anticipates an additional 9-11% increase for FY2001. The system works in concert with NECSES (New England Child Support Enforcement System.).



MACWIS (Maine Automated Child Welfare Information System) automates the management of DHS's Child Welfare services.

MEPOPS (Maine Point of Purchase System) provides client eligibility information on-line to over 300 pharmacies throughout the state. The system covers 153,000 people under Medicaid and an additional 28,000 under Maine's Drugs for the Elderly and Disabled Program and programs to assist individuals with aids or tuberculosis.

It processed over 3,500,000 prescriptions totaling around $200 million in calendar year 2000. The system also tracks usage of prescription drugs, warns pharmacists of drug interactions, and prevents overuse or misuse of drugs. It also greatly reduces the payment time to pharmacies. Processing claims took up to three months with the previous manual system. MEPOPS makes payments possible in about 10 days.



MECAPS (Maine Enrollment and Capitation System) manages the Medicaid managed care program. Its functions include client enrollment, managed care history, and calculations of payments to managed care organizations.

MECARE (Maine Long Term Care Eligibility System) is an information system used for long-term care decisions for seniors. For example, MECARE can determine whether a person will be best served by a nursing home, community-based services, or home health care and can then match the person's needs to the resources available. A Registered Nurse, using a laptop computer, does the assessment in the home, in the hospital, or nursing home.

ImmPact is an immunization information system jointly developed by Maine and New Hampshire. ImmPact allows health care providers to share information on a child's immunization history, maintains a vaccine inventory for doctors, and automatically schedules children for preventative health care visits.

WIC (Women, Infants, and Children) provides assistance to women and their children. Its support application keeps track of all food and infant formula distributed. WIC also links centers in 19 different locations and gives all workers access to statewide information.

Saving Transportation Dollars for Transportation Infrastructure

The Department of Transportation makes extensive use of automated productivity enhancing applications in its planning and management activities.

Survey automation allows the department to reduce size of each survey crew and improves safety of workers.

Drafting and design automation (CADD) has a documented four to one productivity improvement ratio. The most significant gain is the ability to

quickly alter and refine alternative designs.

The Automated Roadway Analyzer (ARAN) collects road condition and other information at traveling speed and has improved the efficiency of data collection 15 to 30 fold. With the implementation of a Geographic Information System (GIS), the Department can link ARAN video images to the GIS base maps.

ProjEx (Project Scheduling & Resource Management System) automates project-scheduling information. It helps keep capital improvement projects on target and facilitates successful on-time and on-budget project delivery through improved communication, coordination of work schedules, and efficient human resource assignment.

Improving Services to Environmental Permit Customers

The Department of Environmental Protection (DEP) uses a central Application Tracking System to track and manage applications for licenses and permits. It enables applicants, management, and the public to monitor the status of an application. E-mail communications greatly reduce the time to turn around questions and to exchange information with applicants, consultants, and other reviewing agencies. The system has reduced a 1989 backlog of over 1000 pending Site Law applications and permits to zero and reduced permit processing time from over one year to 6 to 10 weeks.

Desktop access to departmental databases and information allows staff to answer the public's questions in real time and send responses via e-mail. Interested parties can obtain relevant portions of statutes and regulations and some departmental data directly via the Internet.

Access to the Internet keeps staff informed of changes in science and technology and in state and federal rules, regulations, and policies. It enables staff to exchange information with their peers in other states and the federal government. This makes information readily available when and where it is needed and helps foster sound decisions. As an example, there is currently a great deal of discussion and research on the levels and impact of mercury in the environment. The Internet assists parties in New England and Canada to plan a coordinated response.

Managing Unemployment Insurance Customers

The Unemployment Insurance Program converted from delivering claims services in-person out of a network of fifteen local offices to delivering services by telephone through a virtual teleprocessing system consisting of three call centers. The Centers were

made possible through a cooperative venture between the State and Lucent Technologies, since the State system is a Bell lab site, and through an innovative use of interactive voice response (IVR) technology. Unemployment Insurance customers call local numbers in their area of the state and the call is automatically routed to a local Call Center or to an available operator in another Center. Using skills-based routing, calls can also be routed to match a customer's needs with the special area expertise of an operator. Sophisticated system management and reporting software tools make it possible for center supervisors to adjust queues and call routing in response to workload fluctuations, monitor the system for quality assurance and forecast staffing and scheduling needs (See page 31).

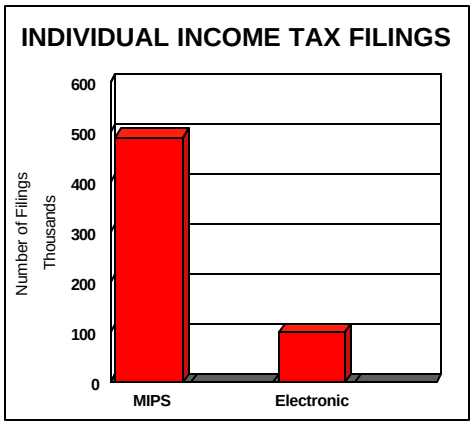
Searching for Jobs and Finding Employees

Staff at Career Centers have a client management support applications that allows them to easily enter and manage client information and to link clients to training and employment opportunities.

Efficient Processing of Tax Returns

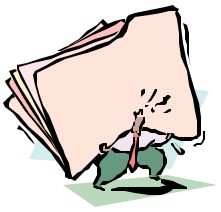
DAFS's Bureau of Maine Revenue Services developed the Maine Automated Tax System (MATS) to manage tax return data from individuals and businesses. The Bureau's Maine Image Processing System (MIPS) uses image and Optical Character Recognition technologies to process tax return and automatically enter tax data into MATS. The image storage capability provides Bureau auditors immediate access to past filings.

In addition, individuals can file tax returns electronically over the Internet or over the phone using an automated voice response system. In 2001, MRS will process 490,000 individual income tax returns using its MIPS system and 110,000 electronically.



Paperless Management of Corporation Filings and Property Leans

The Secretary of State, Bureau of Corporations has an Oracle and imaging based Automated Information System for the management of data and documents related to the collection, tracking, and storage of corporation and UCC (lean) filings. The system stores all documents in digital image files. It provides records management reports and automates the process of purging (imaged) documents that are older than the retention period required by the Maine State Archives' records management schedules.



Removing Remnants of Paper from a Paperless Office

The Bureau of Corporations, Elections, and Commissions has continued to refine

its automated system. By adding a bar code to its corporation annual reports, it will be able to read the barcode during the scanning process and thereby eliminate the manual logging of the filing.

The Bureau has also instituted a process using File Magic from Westbrook Technologies to create and store image files of electronic records created by their automated system. This process has enabled them to eliminate the need to create paper file copies of all outgoing communications to corporation filers as well as of all Oracle produced financial reports.

Managing the Election Process

The Secretary of State, Division of Elections has an Oracle based system for managing the election process. The system starts with the filing of candidate papers. It then prepares candidate lists and formats ballots for printing. It provides an application for recording election returns. Finally, it provides online access for the general public to election results from the current and previous elections.

B. CURRENT INITIATIVES

Opening the Legislative Process

The Legislature is planning a migration from its Wang database and application system to an Oracle based system. The new system will enhance functionality and interoperability with other agencies and branches of state government.

Enhancing the Management of Social Services

The Department of Human Services currently uses an outdated system (Welfre) for its benefit eligibility determination and Medicaid claims processing. This system is the hub of all DHS client management systems. Welfre was installed in 1978 and the department's current needs far outstrip the application's very limited abilities to provide information. DHS is in the process of replacing Welfre with two systems: ACES (Automated Client Eligibility System) and CMS (Claims Management System.)

ACES will determine a recipient's benefits eligibility, including Food Stamps, Medicaid, TANF (formerly AFDC), and ASPIRE. It will collect and store client information; fully calculate benefits based on a client's income and assets; issue notices, monthly payments, and ID cards; and provide state and federal reports. This new system will allow three times as many workers to use the system at once, thereby reducing current long waiting periods. It also will move workers from handwritten case notes to electronic notes, and give much faster access to information.

CMS will process and manage the $1 billion in annual Medicaid claims for both DHS and DMHMRSAS. CMS will reduce duplicate and inappropriate claims, improve the ability to implement changes mandated by the Legislature, increase collections from other sources, speed up claims processing, and deter fraud.

Supporting Law Enforcement by Automating Access Criminal History Records

The Departments of Public Safety and Corrections and the Judicial Branch have developed an RFP to select a vendor to implement a comprehensive criminal records management system. The system will also collect, store, and provide online access to information for law enforcement agencies, the courts, correctional institutions, the Attorney General, and District Attorneys.

Removing the Last Remnants of Paper from a Paperless Office

The Bureau of Corporations, Elections, and Commissions is working with the State's Portal manager, InforME, to develop the capability for accepting UCC leans and corporation filing forms electronically over the Internet.

C. FUTURE STRATEGIC DIRECTION

All agencies of state government will have automated systems to manage services to individual and business customers and to manage agency operations.

Action Items.

- The Department of Corrections will implement an integrated management system that combines its Corrections Master Record System (COMRS), Department of Corrections Information System (DOCIS), inmate accounting systems, inventory management system, and retail sales system.
- The Departments of Public Safety and Corrections and the Judicial Branch will complete the implementation of a criminal records management system that complies with the Interstate Identification Index standards of the National Crime Information Center.
- The Bureau of Human Resources will provide accounts to track salary and benefit costs for each state government program or activity and individual accounts to display the value of an employee's compensation and employee and State benefit contributions.

V. E-GOVERNMENT
ACCESS AND SERVICES FOR CITIZENS AND BUSINESSES

The ultimate extension of information management and customer service applications is the direct incorporation of the information provider and business and citizen user into the system. The State has moved aggressively in the adoption of e-commerce tools and the creation of a robust e-government Portal to the State's information resources and services. The descriptions below represent only the tip of a forming iceberg.

A. ACCOMPLISHMENTS

Providing a Single Entrance to E-Government

The establishment of the InforME portal has consolidated state agency e-commerce, e-government, and information distribution activities and provided citizens and businesses with a single point of access. InforME also provides state agencies access to additional expertise and resources for the development of e-government applications and subscription services to businesses wanting special, enhanced, or tailored access to state agency information.

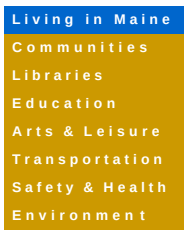
The InforMe Portal is organized in a functional manner to meet the needs and interests of businesses and the general public. It has five major headings:

- Maine State Government.
- Doing Business in Maine.
- Living in Maine.
- Visiting Maine.
- eGovernment Services.

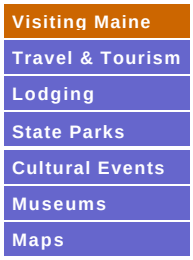
Maine State Government makes available the informational websites of departments, agencies, and offices in all three branches of government as well as quasi-governmental, independent entities. In addition, it provides an extensive listing of federal and local government offices and resources as well as organizations and associations supporting the distribution of information about government.

Doing Business in Maine supplies information to both employers and employees on employment opportunities in Maine and across the country. It gives access to information on Maine corporations, business resources, and professional licensing. It provides access to online interactive web services for businesses that want to bid on state contracts or state commodity or equipment purchases. In conjunction with the Department of Professional and Financial Services, InforME has developed interactive pages for the online filing of most professional license renewals.

Living in Maine enables access to information about Maine communities, education, libraries, and other aspects related to the Maine quality of life.



Visiting Maine provides services to individuals interested in vacationing or otherwise taking advantage of Maine's natural environment. It includes services for making online hotel and state and private campground reservations.

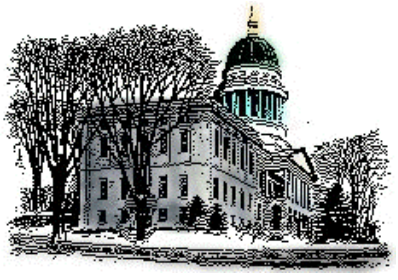


eGovernment gives another point of access to services available to both businesses and citizens. Business Services include online access to a searchable listing of corporation names and copies of all corporation filings. It provides access to Maine Revenue Services online filing of sales and other business taxes. It provides subscription services for approved insurance companies to access Bureau of Motor Vehicle driver license, driver history, and vehicle title and registration records. Citizen Services include a wide variety of informational and online e-government resources. Among others, these include:

- Telephone Directory listing of state offices.
- A searchable listings of:
  - Artist and art organization.
  - Dedimus Justices search.
  - Doctor search by region.
  - Notaries search.
- Access to the Legislature's listing of bills and bill status.
- Genealogy search for birth, death, and marriage archives.
- Maine Health Data and state and national health resources.
- A searchable motor vehicle vanity plate name availability.
- ATV and snowmobile registration renewal.
- Campground registration.
- Hunting and fishing licenses.
- Inland Fisheries & Wildlife online store.
- Lodging reservations.

Accessing Maine Laws and the Legislative Process Online

The Legislature's website provides online, searchable access to Maine's Constitution, Statutes, and Chaptered Laws. In addition, it provides a Bill Tracking System to view copies of bills and amendments and track the progress of legislation from its initial submission through floor debates and votes. Records of debates and roll calls are found online in the Legislative Records of each house. Individuals and organizations can contract with the Legislative Branch to receive periodic updates on selected legislative topics.

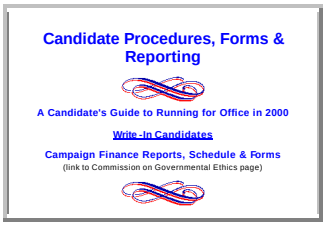


Online copies of Rules clarifying state laws are available on the website of the Division of Rules, Commissions, and

Administration in the Department of the Secretary of State.

From Candidate to Elected Official: Automating the Electoral Process

The Elections Division at the Secretary of State and the Ethics Commission provide a wealth of information for both candidates and voters. Candidates can find information on running for office. Office holders can access filing forms required by the Ethics Commission.



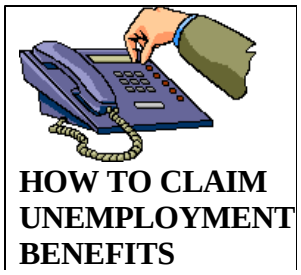
Candidates and voters can access the results of prior elections, statistics on the number of registered voters, and listings of past and proposed Citizen Initiatives.

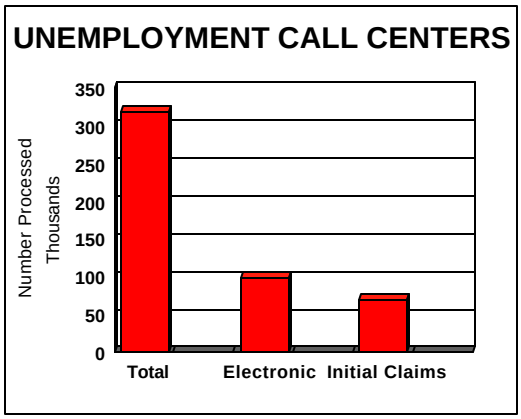
Good Jobs, Safe Jobs, Labor Laws

The Maine Department of Labor has public terminals at its Career Centers that include listing of employment opportunities in the state and in the national America's Job Bank. Job information is also accessible over the Internet from home or at libraries throughout the state. For clients registered with the Career Centers, users can schedule job interviews with employers listing openings from Career Center terminals or online from home or library computers.

Providing Income Support to Unemployed Workers

DOL's Unemployment Insurance Call Centers have automated many of the common questions from unemployment recipients and employers. Its Automated Voice Response system, for example, can answer a recipient's questions regarding the status of an unemployment check. The caller chooses the appropriate menu item and provides the correct personal identifier. The system then searches an Oracle database containing information on payments and gives an automated response as to whether, and when, the check was cut and sent.





The Call Centers processed 318,200 calls in calendar 2000. Of these, 100,500 were handled electronically through its Interactive Voice Response (IVR) Unit. During the period 71,300 initial claims were filed and 506,100 weekly claim cards were filed. Recipients will be able to file weekly claims over the phone using the IVR system in FY 2002.

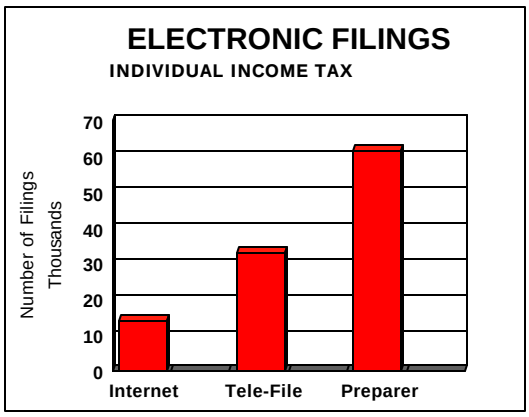
The Department of Labor's website also connects visitors to a range of related sites. Visitors can access national listings of employment opportunities, descriptions of federal programs aiding workers, and useful information on financial planning and retirement.

Online Bidding on Government Purchases

Division of Purchases has contracted for an automated browser based system for posting purchase orders from agencies, vendor online bidding, receiving and managing bids, making awards, and processing payments.

Paying Taxes Online

Individual income taxpayers have several methods of filing income taxes. Any taxpayer can download income tax forms from the Maine Revenue Service's (MRS) website, have a tax practitioner file an electronic return, or file an individual income tax return directly over the Internet. In addition, MRS's Tele-File system uses voice response technology to allow an individual income tax payer to file a short-form return over the phone. For the 2000 tax year, 62,000 had a tax preparer file electronically, 14,500 filed over the Internet, and 33,200 used the automated phone voice response system (Tele-File).



Businesses can file withholding, unemployment, and sales taxes over the Internet and make payments using electronic funds transfers.

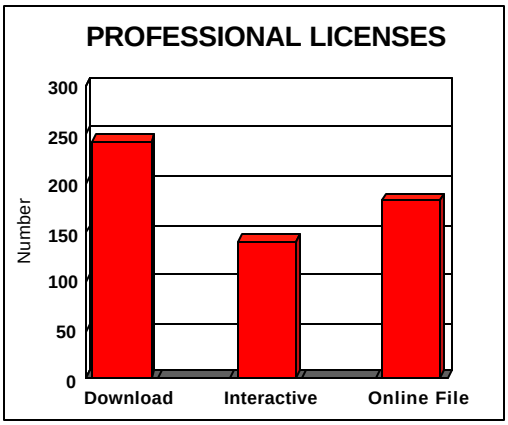
Using Technology to Enhance Regulation of Banking and Financial Institutions

The Department of Professional & Financial Regulation has made significant investments in technology and related tools. These tools have allowed them to link with the financial services industries and federal and other state regulators. Investments in technology and software allow technical staff to access data electronically and make the agency's financial analysis function more efficient.

The Bureau of Banking conducts business with the FDIC, Federal Reserve Board, and other federal regulators electronically. Banking and insurance financial reports, which used to be submitted in paper, are now submitted electronically to the Department.

Renewing Professional Licenses Online

The Department of Professional & Financial Regulation (DPFR) has made a major investment enabling individuals to renew their professional licenses on-line. Individuals can download all of DPFR's 242 licensing forms from the Web. In addition, in December 2000, DPFR made 140 of the forms interactive to allow for online filing and credit card payment of license renewals. In the first four months of online filing, 182 individuals have renewed their licenses online.



In addition, electricians can file an Electrical Permit Application for permission to install electrical equipment in areas not covered by municipal electrical inspectors via a combination of email and the Internet based application forms.

An Online Window on Maine Courts and Legal Assistance

The Judicial Branch's website contains extensive information on the court system and the names and addresses of courts and court officials. Additional online information is presented for prospective jurors and on court procedures and court fees. It also provides online copies of Supreme Court Opinions.

Visitors can link to other sites providing legal information and assistance. The link to Pine Tree Legal Assistance, Inc. provides access to legal forms used in Maine court proceedings. Some of the forms are interactive and can be filled out online before printing.

Pine Tree Legal Assistance
Experimental Forms
Preparation Site

Providing the Public a Real-time Online View of the Regulation of Public Utilities

The Public Utilities Commission provides real-time, audio and video transmission of its regulatory proceedings over the Internet. It is also developing a capability of accepting online filings.

Strengthening Maine's Seafood Industry

The official Maine Seafood Industry website is a unique public-private initiative of the Maine Department of Marine Resources (DMR) and Maine's seafood industry. The website provides an efficient way to accomplish the dual purpose of providing a continuous flow of information within the Maine seafood industry and to prospective buyers and customers worldwide.

DMR's goal is for Maine's seafood industry to take ownership of this site. DMR would continue to supply content and information on events, news, and industry trade leads.

The site offers several distinct functions to serve its target audiences. These include:

- Dialogue forums.
- The Maine Seafood Products directory - A searchable database listing suppliers of Maine seafood products.
- Industry Library - Calendar of industry events, news bulletins, articles, papers, profiles of Maine species, a glossary of fisheries management terminology (for beginners, and advanced users) and industry trade leads reside in the seafood library.

Information on Education – What and How Maine is Doing

Primary and Secondary Education.

The Department of Education provides database of information about public primary and secondary schools and other educational resources across the state.

Maine State Colleges and Universities.

The University of Maine System, the Maine Maritime Academy, and the Maine Technical College System (2 year community colleges) all have course listings on their websites. In addition, they provide some combination of WEB browser based or automated telephone response systems to provide registration, grades, and other services to students.

The University System also provides distance-learning opportunities via interactive television at locations throughout the state.

Maine Statistics at a Glance

The State Planning Office maintains a database on population and economic statistics.

B. CURRENT INITIATIVES

Conducting Business Online

Legislation passed in 1999 (PL 446, An Act to Improve Access to Electronic Filing for Businesses) directs every state agency that requires filing of information by businesses or the public to make their forms available for downloading from the Internet. The legislation also requires agencies to submit plans for the development of applications for the online filing of forms.

Filing Campaign Expenditure and Lobbyist Reports Online.

The Maine Commission on Governmental Ethics and Election Practices plans to accept electronic filing of campaign contributions and lobbyist discloser reports. This information will be available to the general public online from the Commission's Website.

Renewing Motor Vehicle Registrations Online

The Bureau of Motor Vehicles has successfully prototyped and will expand to interested municipalities a web based application that enables individuals to renew their vehicle registrations and pay local vehicle excise taxes online.

Online Filing of Corporation Documents

The Division of Corporations in the Secretary of State has contracted with InforME to expand its web-based interface with businesses and non-profit organizations. The Division will accept online electronic filing of Articles of Incorporation, charter amendments, and corporation annual reports as well as UCC filings over the Internet.

MOSES Delivers Hunting Licenses

The Department of Inland Fisheries and Wildlife has undertaken a major initiative to automate its licensing, registration, and permitting systems. The Maine Online Sportsman's Electronic System (MOSES) will be an Internet based, point of sale system. The Internet will be used as the communications method for the sale and tracking of licenses, permits, and registrations issued by the Department of Inland Fisheries and Wildlife. The Department's agents across the state will have access to data that will make the transaction with the customer faster and less prone to error. Individuals will also be able to obtain licenses, registrations, and permits directly over the Internet or by phone from call centers.

Renewing Professional Licenses Online

The Department of Financial and Professional Regulation (DFPR) will expand its application for on-line filing of professional license renewals to cover all of the 230 licenses managed by DFPR.

C. FUTURE STRATEGIC DIRECTION

Individuals and businesses will be able to conduct routine transactions with all state agencies over the Internet. All agencies will provide where practicable interactive websites for the completion and filing of forms used to collect information required in the provision of services to their customers. For repetitive transactions that require authorizing customer signatures, state agencies will

have the capacity to establish and accept e-signatures.

Action Items:

- The State will establish procedures and implement technology to accept e-signatures.
- The number of online forms will increase.
- InforMe will implement major enhancements to the State's Internet portal to improve ease of use.

VI. SECURITY AND PRIVACY

The general policy of the State is to secure its operations from disruptive outside intrusions and to protect and manage its information resources in a manner commensurate with its confidentiality. Under the State's "freedom of information" statutes, citizens have the right to "inspect" all public documents and information. At the same time, the State and its agencies have the responsibility to protect information specifically classified as confidential.

To protect the entire system against unauthorized access and viruses, the State has adopted a layered approach. These are divided between the enterprise level WAN management and individual agency control of their local networks and applications.

A. ACCOMPLISHMENTS

Network Management

The BIS Network managers maintain a firewall to control outside access the State's WAN. In a "reactive/preventive" mode it can block known virus messages. It also directs all e-mail to its mail concentrator. The concentrator screens specific file types that are able to contain viruses or act as Trojan horse programs or time bombs. It also runs virus detections software to examine all messages and attachments.

Agency Actions

Agencies provide a further layers of protection by running security and virus protection software on their Mail Servers, Post Offices, and desktops. Additional access controls are imposed in the form of logon ID's and passwords that restrict the areas of access and functions performed. Physical security is imposed in terms of restricted areas, photo ID badges, and locks.

All state agencies have also established record management procedures for the handling of confidential information and for responding to requests to "inspect" public documents. The procedures provide the means for regulating and tracking access to sensitive information regardless of the media on which it is stored (paper, film, or computer hard drive); the systems that process it (microcomputers, mainframes, or voice mail systems); or the methods by which it is moved (regular mail, electronic mail, or voice).

B. CURRENT INITIATIVES

Windows 2000

The initiative of BIS and the ISMG to implement Windows 2000 as the enterprise e-mail and network operating system will provide increased security.

Privacy

Both the Legislature and the ISPB have initiatives to protect the privacy of confidential information. The initiatives will require the State's websites to provide privacy statements that inform visitors what will happen to the information entered by the visitor or otherwise collected on the visit under the State's confidentiality and Freedom of Information statutes.

C. FUTURE STRATEGIC DIRECTION

The State will continue to operate an industry standard network, server, and desktop security system.

Action Items:

- The State will implement Windows 2000.
- The State will develop policies and practices and implement information technology systems that assure the confidentiality of statutorily protected personal information.

The Department of Human Services and the Department of Mental Health, Mental Retardation, and Substance Abuse Services will work to keep their information compliant with federal security and privacy standards.

Action Items:

- As they are promulgated, Maine will conform to the rules implementing the 1996 federal Health Insurance Portability and Accountability Act (HIPAA).

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APPENDICIES

APPENDIX A

INFORMATION AND TELECOMMUNICATION TECHNOLOGY GOALS AND SUPPORTING PRINCIPLES

These Goals and Principles are a working document under development by the Information Services Policy Board. The term Information and Telecommunications Technology (ITT) as used here should be construed broadly and include hardware and software infrastructure, applications and governance.

GOAL I. Information and telecommunications technology will enhance the productivity of state employees and the cost effectiveness of state government.

Principle 1. ITT will support program management in the performance of their mission and statutory functions. ITT will increase the efficiency of current business processes and catalyze their reengineering

Principle 2. ITT will provide a seamlessly integrated statewide WAN and LAN network that allows information sharing and cooperative action:

A. Horizontally among all state government units, and
B. Vertically among local, state, and federal government entities.

Principle 3. ITT will allow access to any state service from any regional or local government office location or from mobile locations.

Principle 4. ITT will make state employees' skills applicable (and personnel and training resources shareable) across state government. For example, ITT will provide enterprise-wide access:

A. To a common set of user interfaces.
B. To a common set of desktop productivity tools.
C. To a single (or an interoperable) set of database management systems and development tools.

Principle 5. ITT will support the use of information as a strategic resource by making it easily accessible to and analyzable by all state government decision makers and policy developers. For example, ITT will provide for:

A. The transmission of the content and format of document text and tables.
B. The transmission and importation of the content of data files.
C. The adoption of common data definitions. The coordination and sharing of data analysis resources.

Principle 6. ITT will minimize the duplicate performance of procedures

(e.g., input of data) across state government if practical, efficient, and acceptable to the public.

Principle 7. ITT will meet the needs of state employees, citizens, and business partners with disabilities by complying with the requirements of the Americans with Disabilities Act.

Principle 8. ITT will minimize system failures and downtime by planning for redundancy and recoverability.

GOAL II. Information And Telecommunications Technology Will Be Implemented In The Most Cost Effective Manner

Principle 9. ITT will support program managers across state government in analyzing common functions, aligning business practices, and defining requirements of shared processes.

Principle 10. State government will reward collaborative realignment of business processes and the sharing of ITT resources across government units. ITT will use central mandates to make commonly accepted standards universal.

Principle 11. ITT will promote collecting and validating information once at the time of initial collection.

Principle 12. ITT will encourage innovation and entrepreneurial initiative by state government units.

Principle 13. Program and ITT management will plan for the impact that changes in information and telecommunications technology will have on its unit's organization, employees, customers, business partners, and public.

Principle 14. ITT will adopt single (or interoperable) industry hardware and software standards for networks, operating systems, database management systems, and application development tools and methodologies.

Principle 15. ITT systems will allow network, hardware, operating system, and application elements to change and evolve independently of each other. Proprietary interdependencies should be minimized and any to any interoperability supported.

Principle 16. ITT will plan for future fluctuations in service volumes. For example, ITT will:

A. Provide sufficient capacity for projected demand.
B. Adopt scalable hardware and software technologies.

Principle 17. ITT will plan for future changes in technology by anticipating and planning, with program managers, for the replacement of obsolete application systems.

Principle 18. ITT systems' development and management depend on well-trained staff.

GOAL III. Information And Telecommunications Technology Will Enhance Service To Customers And Business Partners.

Principle 19. Citizens, customers, and business partners should remain as a focal point at all stages from the description, reengineering, and realignment of business processes and through the design, development, and implementation of new ITT support systems.

Principle 20. ITT will provide public access to state government services through user-friendly Internet portals and publicly accessible terminals.

Principle 21. ITT will provide for the download and secure electronic filing of forms, or other information entry and transmission, required of citizens, customers, and business partners in the conduct of business with state government units.

Principle 22. ITT will allow for the secure direct electronic transmittal of funds between state government units and their citizens, customers, and business partners.

Principle 23. ITT applications will minimize information entry and other usage burdens on customers, business partners, and the public.

GOAL IV. Information And Telecommunications Technology Will Foster Trust In State Government As Custodian Of Valuable Records While At The Same Time Facilitating Public Access To Public Records.

Principle 24. ITT will collect, manage, and provide (jointly with the Maine State Archives) for the future disposition (disposal or preservation) of information collected or created by the State.

Principle 25. ITT will provide security for confidential information.

Principle 26. ITT applications will only collect information that is Principle 28.

necessary for the performance of the business function.

Principle 27. ITT will provide public access to public (non-confidential) state government information – records, documents, and data files -- through user-friendly Internet portals, publicly accessible workstations, or kiosks.

GOAL V. Information And Telecommunications Technology Will Act As Catalyst For The Statewide Private Sector Development Of A Modern Information Network And Adoption Of Electronic Commerce.

Principle 29. ITT will support the development of a modern, real-time interactive statewide public/private communications backbone through the strategic purchasing of current and evolving network technologies and services.

Principle 30. ITT will promote training in computer technology and e-commerce. For example, ITT will support:

A. In-service training opportunities for any state employee with an interest and aptitude in information technology.
B. Internships and mentoring programs in state government and encourage their development in the private sector to interest high school and college students in careers in information technology.
C. The development of information technology programs and training in elementary and secondary schools, technical schools and colleges, and continuing education.
D. Workshops and other promotional activities for businesses and the general public.

Principle 31. ITT will support public access through the expansion of services in schools, libraries, state and local government offices, and other public access terminals and through toll free access to Internet services providers.

Principle 32. ITT will encourage the adoption of information and e-commerce technologies by Maine citizens and businesses by providing assistance and other incentives to facilitate the use of e-commerce applications developed by state government units.

Principle 33. ITT will encourage the development of new high tech business by supporting initiatives for:

A. Investments in Research and Development.
B. Venture capital.
C. High tech business startups.
D. Patent development and filing support.

APPENDIX B

ACRONYMS

ATM – Asynchronous Transfer Mode

ATM sends information in fixed size packets called "cells" on request. Each packet can be assigned to the bandwidth without waiting. It is designed for high-speed transmission of interactive services. It is faster and more flexible than synchronous transfer mode which requires assigning bandwidth to scheduled transmissions.

ATM Project

The Department of Education's Advanced Telecommunications for Maine (ATM) Project coordinates the use of bond issue funds for the development of video and audio transmission sites at public schools across the state.

GIS – Geographic Information System

GIS is a computer system capable displaying information on a map, e.g., the location and number of accidents on a highway map.

ISDN – Integrated Services Digital Network

ISDN provides broadband, high throughput, digital transmission required for interactive ATM services.

IVR – Interactive Voice Response

IVR is a phone technology that can interpret the voice commands of a caller and then automatically route the call, retrieve information, and deliver an answer.

LAN – Local Area Network

A LAN is a combination of computer hardware and software linking together intelligent computing devices, e.g., PC's, an office, or other limited geographic area for the purposes of sharing applications, data, and peripheral devices.

MFASIS – Maine Financial and Administrative Statewide Information System

MFASIS is the core software used to manage the state government's accounting transactions, budget, and human resources.

MPBN – Maine Public Broadcasting Network

MPBN is Maine's public radio and television system.

MPEG2

MPEG2 is the international standards for video and audio transmissions established by the Motion Picture Expert Group of the International Standards Organization (ISO).

MSLN – Maine School Library Network

MSLN was the system that connects all libraries and public schools in Maine to the Internet. It was supported by a settlement with Bell Atlantic and a federal charge on interstate phone calls.

MSLN2 — Maine School Library Network2

MSLN2 replaces MSLN and is supported by a federal charge on interstate phone calls and a charge by the Maine Public Utilities Commission on Maine intrastate calls.

OGIS – Office of Geographic Information Services

OGIS is the administrative office within the Bureau of Information Services responsible for administering the GIS system.

OCR – Optical character Recognition

OCR is software used in conjunction with scanning paper documents which transforms a digital text image into characters recognized by a computer word processor.

UNET – University Network for Educational and Technological Services

UNET is the University of Maine System's telecommunications network linking all users on a campus to all other users on that campus, other campuses in the University System, and the Internet.

WAN – Wide Area Network

A WAN is a combination of computer hardware and software which provides data communications services between agencies, geographically separated locations, computer systems, and local networks.